

State of California  
The Resources Agency  
DEPARTMENT OF WATER RESOURCES  
DIVISION OF SAFETY OF DAMS

### INSPECTION OF DAM AND RESERVOIR IN CERTIFIED STATUS

Name of dam Oroville Dam Dam No. 1-48 County Butte  
 Type of dam Earthfill Type of Spillway Gated Concrete Weir and Chute  
 Water is    feet    below    spillway crest and    feet    below    dam crest.  
                     W.S. 768.86 feet  
 Weather Conditions Mild and partly cloudy  
 Contacts made Kevin Dossey and Lee August, OFD; David Panec, Dan Garcia, and  
John Rizzardo, O&M. Also met with DWR photographer Paul Hames  
 Reason for inspection Periodic Evaluation

#### Important Observations, Recommendations or Actions Taken

No recommendations.

#### Conclusions

From the known information and the visual inspection, the dam, reservoir, and the appurtenances are judged satisfactory for continued use. ~~pending completion of radial gate repairs.~~ *wmp 5/3/05*

Item No.*	Item Name and Observation and Comment
A1-A4	<p><u>Dam</u> - The crest roadway was in good condition. The upstream concrete curb has prevented further erosion of the edge of the crest. Vegetation and rodent control on the dam are very good.</p> <p>The upstream slope was observed from the crest, and during a walk across the 815 berm. The rock slope remains in satisfactory condition. Rock does appear to have migrated down the slope in some areas above the berm. Selected rocks have been painted and are monitored for indications of slope movement. None has been observed.</p> <p>The downstream slope was even and covered with grass and weeds. The usual damp area at mid-height on the left side of the dam was lush, with tall grass and weeds.</p> <p>The left groin was traversed from the toe, and found to be clear of vegetation. No signs of instability or seepage were observed. The right groin was observed from several locations but not traversed. No signs of instability or seepage were observed.</p> <p>The right grout gallery was entered from the top. The first seepage was observed at elevation 755. Seepage increased steadily to about 13 gpm at the sump level. Nothing unusual was observed. O&amp;M is considering what to do about the accumulation of calcite along the gallery walls. These deposits have caused a buildup along the utility conduits and ground cables.</p> <p>The left gallery was traversed from the sump to the emergency exit tunnel. This portion of the gallery appeared to be in</p>

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 Date 3/7/05  
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Use Field Sheet Standard  
 Numbers and Items  
 (See Reverse Side)

Inspected by W Pennington  
 Date of Inspection 2/8/05  
 Date of Report 3/7/05  
 Photos taken? Yes    No X  
 Sheet 1 of 3 Sheets  
*3/7/05*

# INSPECTION OF DAM AND RESERVOIR IN CERTIFIED STATUS

Name of Dam Oroville

Dam No

1-48

Date of Inspection 2/8/05

## Observations and Comments (Continued)

Item No.*	Item Name and Observation and Comment
	<p>satisfactory condition. The seepage at the sump level was about 11 gpm, which is normal.</p> <p>The access gallery was traversed to Terminal S, and was found to be in satisfactory condition. O&amp;M is looking for a better way to measure the turbidity of the seepage coming from the tubing bundle at Terminal S. Seepage flow from the tubing bundle appeared to be normal.</p> <p><u>Bidwell Canyon Saddle Dam, Parish Camp Saddle Dam</u> - Bidwell Canyon Saddle Dam appeared to be in good condition. No indications of slope instability, significant rodent activity, or objectionable vegetation were observed. Parrish Camp Saddle Dam was not inspected because the reservoir was well below the toe.</p> <p><u>Palermo Tunnel</u> - The tunnel was not in operation, and was not entered.</p>
6,8,10	<p><u>Spillway</u> -The spillway chute and walls were observed from the roadway deck, and from the walkway at the trunnion level. Nothing unusual was observed.</p> <p>The flood control outlet structure, radial gates, and mechanical equipment appeared to be in satisfactory condition. No new spalling has occurred along the left or right bridge abutments.</p> <p>The reservoir was well below the emergency spillway weir, which remains in good condition. No concrete deterioration was observed.</p>
14,16	<p><u>Outlet</u> - The valves are cycled every year. The valves and valve vault were in satisfactory condition. The spherical valve pit was somewhat drier than usual. The heaters were on at the time.</p>
17	<p><u>Seepage</u> - Total gallery seepage was about 13 gpm from the right, and about 11 gpm from the left. These flows are within the normal range. The seepage weir at the toe of the dam was just trickling over the v-notch, and flowing through the orifice plate. Seepage is exceptionally low for a dam of this size. Seepage at Terminal S was as expected. House T was not inspected.</p> <p>OFD plans to install additional weirs along the gallery floor drains to minimize the need to take measurements at individual drain locations and cracks. Unexpected changes at the weirs</p>

Author/Typist WMP/wmp

Sheet 2 of 3 Sheets

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18	<p><u>Seepage</u> - will prompt the reader to investigate individual sources upstream of the weir.</p> <p><u>Instrumentation</u> - The instrumentation program and monitoring frequency are detailed in Table 2 of Performance Report No. 11, dated August 2004.</p> <p><u>Hydraulic piezometers</u>: Of 56 units, only 4 or 5 are thought to be functional. These are read weekly. Conditions appear to be normal.</p> <p><u>Embankment settlement and horizontal movement</u>: The recent movement data appears to be consistent with historical trends, and indicates that the main dam and saddle dams are stable.</p> <p><u>Extensometers and Joint Monitoring</u>: Deformations are measured at the core block on a quarterly basis. Deformations are minimal.</p>

Author/Typist WMP/wmp Sheet 3 of 3 Sheets